



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,119	11/11/2003	Ralph C. Mays	005804.00006A	6232
28827	7590	12/29/2004	EXAMINER	
GABLE & GOTWALS 100 WEST FIFTH STREET, 10TH FLOOR TULSA, OK 74103			WILSON, JOHN J	
			ART UNIT	PAPER NUMBER
			3732	

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/706,119	Applicant(s) MAYS, RALPH C.	
	Examiner John J. Wilson	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-29, 31, 32 and 34-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-29, 31, 32 and 34-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 26-29, 31, 32, 34-41 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to or enable one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new language, "to cause said filler material and said shaft distal portion to fill the root canal or optionally to allow said shaft to be removed" is new matter that was not part of the original disclosure. The original disclosure did refer to leaving the shaft in the canal as known in the prior art and as presenting the problem of, to remove the shaft would also remove substantial filler material that had adhered to the shaft. This is the problem of the prior art that the present invention solves. Following this the disclosure makes no statement as to optionally not removing the present inventive shaft. There is no teaching of leaving the present shaft in the canal or optionally removing it. There is no teaching of how the present shaft can be attached to an energy source and then detached so as to allow the shaft to remain. If the present claim language is broad enough that the skilled artisan would have known not to attach the shaft to an energy source before inserting, then the claims would read on the disclosed prior art because only one of optional embodiments needs to be shown in order to meet an alternative

language claim. On the other hand if the shaft is intended to be left in after the source of energy is applied, there is not teaching that would enable a skilled artisan to know how disconnect the shaft from the energy source to leave the shaft in the canal.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26, 32, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of the known prior art as disclosed in the present application, pages 3 and 4. Malmin shows an elongated shaft 930, Fig. 30, filler material applied onto the distal end of the shaft, column 10, lines 5-8. The tips in this embodiment are used to apply the sealant using the same principle as those of Fig. 4, column 9, lines 57-65, and the method of Fig. 4 as taught is to pick up the material and insert it into the root canal, column 9, lines 10-14. Malmin further teaches applying energy, column 9, line 61, through column 10, line 2. The option of removing the shaft is taught by Malmin, however, this claimed option implies that there is also an option of not removing the shaft, which Malmin does not show. The prior art as taught by the present disclosure at pages 3 and 4 teaches that it is known to not remove the shaft. It would be obvious to one of ordinary skill in the art to modify Malmin to include not removing the shaft as is shown by the disclosed prior art in order to fill the canal. The

applied sonic energy will inherently vibrate and heat the shaft and therefore will inherently cause a decrease in surface tension. As to claim 32, Malmin shows a shaft, Fig. 10, filler material 10 applied to the shaft and a source of sound energy, Fig. 12.

Claims 27, 28 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of the known prior art as disclosed in the present application, pages 3 and 4 as applied above, and further in view of McSpadden (4353698). The above combination shows the structure as described above, however, does not show a temperature sensor. McSpadden teaches using a temperature sensor, column 4, lines 2-6. It would be obvious to one of ordinary skill in the art to modify the above combination to include the use of a temperature sensor as shown by McSpadden in order to better control the energy supplied to the shaft. The specific location of the sensor is an obvious matter of choice in the location of a known element in order to best sense the temperature at the needed site. As to claim 28, the above combination does not state that the shaft is a metal shaft. McSpadden teaches that it is known to use metal shafts, column 2, lines 57-59. It would be obvious to one of ordinary skill in the art to modify the above combination to include the use of metal as shown by McSpadden in order to make use of known materials for delivering energy to the site. As to claim 36, the above combination does not show the use of a coil. McSpadden shows using a coil, column 3, line 29. It would be obvious to one of ordinary skill in the art to modify the above combination to include the use of a coil as shown by McSpadden in order to make use of known ways of generating energy supplied to an

Art Unit: 3732

endodontic shaft. The location of the coil is an obvious matter of choice in the location of a known element to the skilled artisan.

Claims 29 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of the known prior art as disclosed in the present application, pages 3 and 4 as applied above, and further in view of Corvatto (4480996). The above combination does not show using a plastic shaft. Corvatto teaches the use of a plastic shaft 12, column 2, lines 66-68. It would be obvious to one of ordinary skill in the art to modify the above combination to include the use of plastic as shown by Corvatto in order to make use of art known materials for supplying energy to an endodontic site. As to claim 35, the above combination does not show the use of laser energy. Corvatto teaches using laser energy, column 3, line 26. It would be obvious to one of ordinary skill in the art to modify the above combination to include using laser energy as shown by Corvatto in order to make use of art known forms of energy supplied to an endodontic site.

Claims 31, 34 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malmin (3899830) in view of the known prior art as disclosed in the present application, pages 3 and 4 as applied above, and further in view of Ruddle (6179617). The above combination does not show the use of piezoelectric energy. Ruddle teaches that it is known to use piezoelectric energy as an alternative for creating vibrations, column 4, lines 18-24. It would be obvious to one of ordinary skill in the art to modify

Art Unit: 3732

the above combination to include using piezoelectric energy as shown by Ruddle in order to make use of art known forms of energy supplied to an endodontic site.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 26-29, 31, 32, and 34-41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,312,261 in view of Malmin (3899830). The '261 claims teach placing a filling material on a shaft and providing heat, however, do not show using sound energy. Malmin teaches using sound energy to heat filling material as described above. It would be obvious to one of ordinary skill in the art to modify the claims of '261 to include the use of sound energy as shown by Malmin in order to make use of art known ways of delivering energy to an endodontic shaft. The shown structure inherently provides the option to not remove the shaft. The shown energy will inherently vibrate the shaft. The

Art Unit: 3732

specific type of sound energy used is an obvious matter of choice in known types of energy used in endodontics to the skilled artisan.

Claims 26-29, 31, 32, and 34-41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 6,644,972 in view of Malmin (3899830). The '972 claims teach placing a filling material on a shaft and providing heat, however, do not show using sound energy. Malmin teaches using sound energy to heat filling material as described above. It would be obvious to one of ordinary skill in the art to modify the claims of '972 to include the use of sound energy as shown by Malmin in order to make use of art known ways of delivering energy to an endodontic shaft. The shown structure inherently provides the option to not remove the shaft. The shown energy will inherently vibrate the shaft. The specific type of sound energy used is an obvious matter of choice in known types of energy used in endodontics to the skilled artisan.

Terminal Disclaimer

The terminal disclaimer does not comply with 37 CFR 1.321(b) and/or (c) because:

The person who has signed the disclaimer has not stated the extent of his/her interest, or the business entity's interest, in the application/patent. See 37 CFR 1.321(b)(3).

Response to Arguments

Applicant's arguments filed November 12, 2004 have been fully considered but they are not persuasive. It is held that the plug of Malmin is inherently applied to the distal portion of the shaft when it is picked up as described, and therefore, meets the claim language. While the prior art may be incorporated by reference, they do not teach an option of removing or not removing the shaft as now claimed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

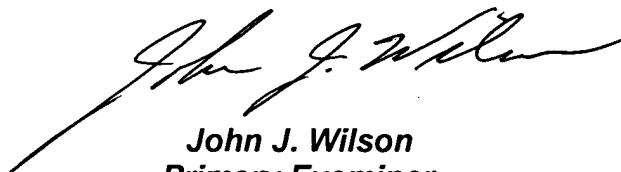
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Wilson whose telephone number is 571-272-4722). The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P. Shaver, can be reached at 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 3732

A handwritten signature in black ink, appearing to read "John J. Wilson". The signature is fluid and cursive, with a long horizontal stroke extending to the left.

John J. Wilson
Primary Examiner
Art Unit 3732

jjw

December 21, 2004